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(54) METHOD AND DEVICE FOR DISPLAYING AUTOMATICALLY INTERNET HOME PAGE ON TELEVISION SCREEN IN COOPERATION WITH TELEVISION PROGRAM

(57)Abstract:

PROBLEM TO BE SOLVED: To automatically display an internet home page on a TV screen in cooperation with a TV program by having an automatic access to a URL related to the TV program synchronously with this program.

SOLUTION: A CPU 101 has a calendar/clock function that executes the overall control of a device via a bus 100 and outputs the current date and time based on a clock oscillator. The viewing channel information showing the current viewing channel is detected and compared with the TV program table data including the URL information on an internet related to each TV program that is fetched to a flash memory 107 from the outside. Thus, the current viewing program is specified. In regard to this specified program, the URL information included in the program table data is recognized and accessed. Then a home page browser screen of the URL information is displayed on one of divided TV screens or in a window of a TV screen.

LEGAL STATUS

CLAIMS

[Claim(s)]
[Claim 1] It is the approach of cooperating with the TV program by which current viewing and listening is carried out in a viewer's television, and displaying the Internet homepage on a television screen automatically. The 1st step which detects the viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening, By comparing with said viewing-and-listening channel information the television race card data incorporating the URL information on the Internet relevant to each TV program incorporated in the storage means from the exterior The 2nd step which specifies the program by which current viewing and listening is carried out, and the 3rd step which recognizes the URL information included in race card data in relation to the this specified program, The approach characterized by having the 5th step which displays the browser screen of the homepage of said URL information in the 4th step accessed to the recognized this URL information, and the window opened one of the split screens of television, or on the television screen.
[Claim 2] The approach according to claim 1 characterized by having the step which incorporates said television race card data automatically periodically using the Internet or broadcast media.
[Claim 3] The approach according to claim 2 characterized by incorporating said television race card data automatically using the time of the Internet connectivity by actuation of a viewer.

[Claim 4] The approach according to claim 1 characterized by disregarding the URL information on the program when the continuation viewing-and-listening time amount of a certain program is shorter than the time amount defined beforehand.

[Claim 5] The approach according to claim 1 characterized by performing access to the URL concerned at the time of day specified by the time information concerned in said 4th step when it has been recognized in said 3rd step that the time information within a program is specified along with URL information.

[Claim 6] The approach according to claim 1 or 5 characterized for the menu window for making a viewer choose one of those URL information by open Lycium chinense on a television screen when it has been recognized that two or more URL information which should be accessed about the program concerned is specified in said 3rd step.

[Claim 7] The approach according to claim 1 characterized by performing access to the URL concerned in said 4th step when the classification which the viewer specified beforehand when it had been recognized in said 3rd step that the classification within a program is specified along with URL information, and the classification concerned are in agreement.

[Claim 8] It is equipment which it cooperates [equipment] with the TV program by which current viewing and listening is carried out in a viewer's television, and displays the Internet homepage on a television screen automatically. A race card data acquisition means to incorporate the television race card data incorporating the URL information on the Internet relevant to each TV program from the outside, This picking A storage means to memorize crowded race card data in un-volatilizing, and a viewing-and-listening channel information detection means to detect the viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening, By comparing said viewing-and-listening channel information with the television race card data memorized in said storage means A program specification means to specify the program by which current viewing and listening is carried out, and a URL information recognition means to recognize the URL information included in race card data in relation to the this specified program, Equipment characterized by having a display means to make the browser screen of the homepage of said URL information display it as an Internet access means to access to the recognized this URL information, in the window opened one of the split screens of television, or on the television screen.

[Claim 9] Said race card data acquisition means is equipment according to claim 8 characterized by incorporating said television race card data automatically periodically using the Internet or broadcast media.

[Claim 10] Said race card data acquisition means is equipment according to claim 8 or 9 characterized by incorporating said television race card data automatically using the time of the Internet connectivity by actuation of a viewer.

[Claim 11] Equipment according to claim 8 characterized by disregarding the URL information on the program when the continuation viewing-and-listening time amount

of a certain program is shorter than the time amount defined beforehand.

[Claim 12] It is equipment according to claim 8 characterized by said access means performing access to the URL concerned at the time of day specified by the time information concerned when said URL information recognition means has recognized that the time information within a program is specified along with URL information.

[Claim 13] Said URL information recognition means is equipment according to claim 8 or 12 characterized for the menu window for making a viewer choose one of those URL information by open Lycium chinense on a television screen when it has been recognized that two or more URL information which should be accessed about the program concerned is specified.

[Claim 14] It is the approach according to claim 8 characterized by said access means performing access to the URL concerned when the classification which the viewer specified beforehand when it had been recognized that the classification within a program is specified along with URL information, and the classification of said URL information recognition means concerned correspond.

[Claim 15] The 1st step which detects the viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening, By comparing with said viewing-and-listening channel information the television race card data incorporating the URL information on the Internet relevant to each TV program incorporated in the storage means from the exterior The 2nd step which specifies the program by which current viewing and listening is carried out, and the 3rd step which recognizes the URL information included in race card data in relation to the this specified program, The 5th step which displays the browser screen of the homepage of said URL information in the 4th step accessed to the recognized this URL information, and the window opened one of the split screens of television, or on the television screen, The record medium which recorded the computer program to realize.

[Claim 16] The viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening is detected. By comparing with said viewing-and-listening channel information the television race card data incorporating the URL information on the Internet relevant to each TV program incorporated in the storage means from the exterior Specify the program by which current viewing and listening is carried out, and it is based on said television race card data in a viewer's television. By acquiring the URL information on the Internet relevant to the program by which current viewing and listening is carried out, and making it access automatically to URL of the this detected Internet In the homepage which combined the homepage of the URL information with the program concerned, or replaced it with the program concerned, displayed on the television screen automatically, and was this displayed The information offer approach by the Internet homepage which is characterized by providing a viewer with the information relevant to the program concerned and which cooperated with the TV program.

[Claim 17] The viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening is detected. By comparing with said viewing-and-listening channel information the television race card data incorporating the URL information on the Internet relevant to each TV program incorporated in the storage means from the exterior Specify the program by which current viewing and listening is carried out, and it is based on said television race card data in a viewer's television. By acquiring the URL information on the Internet relevant to the program by which current viewing and listening is carried out, and making it access automatically to URL of the this detected Internet In the homepage which combined the homepage of the URL information with the program concerned, or replaced it with the program concerned, displayed on the television screen automatically, and was this displayed The commodity transaction approach by the Internet homepage which is characterized by performing at least one of publicity of goods, presentation of an order approach, and the presentation of an order sheet and which cooperated with the TV program.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the approach and equipment on which the Internet homepage which cooperated with the TV program is displayed automatically.
[0002]
[Description of the Prior Art] The sponsor of one company thru/or two or more companies usually takes lessons from the TV program of a commercial broadcasting station, and commercials are passed in the intervals of a TV program. The count and 1 time of die length are restricted on the property performed by such commercials interrupting a TV program.
[0003] The sponsor is groping for the content and the televising approach of more effective commercials in such a limit. Moreover, it is going to grasp the viewer layer of a program by investigating the viewing-and-listening situation of a TV program not only each household exception but according to an individual recently.
[0004] On the other hand, a personal computer (personal computer) spreads even through ordinary homes in recent years, and utilization of the Internet is being expanded quickly. The Internet is the huge aggregate of a computer network connected mutually on a world-wide scale. There are an electronic mail, NetNews (an electronic bulletin board or teleconference), a file transfer (FTP:file Transfer Protocol),

World Wide Web (WWW), etc. in the main function. Especially WWW is the set of the hypertext document described in the language called HTML (Hyper Text Markup Language), ties up mutually the various information which distribute and exist on the Internet, and makes them accessible. Distribution of a hypertext document is performed by the computer on the Internet called a WWW server. A user can access the document on the Internet in a client computer using the access software called a WWW browser (it is also called a web browser). In order to connect a client computer to the Internet, the communication line of dedication may be used in an enterprise, but when a large-scale facility cannot be prepared individually etc., it connects through the engine which offers service for which a permanent communication circuit which is called a service provider, and which self owns is made to use.

[0005] Television which contained the connect function to the Internet especially in home use, or the personal computer which contained the television function is sold recently.

[0006]

[Problem(s) to be Solved by the Invention] In such a situation, this invention uses as an offer plug the approach and equipment which enable service by the completely new technique of having made each TV program and Internet cooperate.

[0007] Therefore, this invention aims at offering the approach and equipment which it cooperates [equipment] with a TV program and display the Internet homepage on a television screen automatically.

[0008] Other objects of this invention are to offer the approach that it can cooperate with the program to which the viewer is viewing and listening now, and a viewer can be automatically provided with the information corresponding to this.

[0009]

[Means for Solving the Problem] The approach by this invention is an approach of cooperating with the TV program by which current viewing and listening is carried out in a viewer's television, and displaying the Internet homepage on a television screen automatically. The 1st step which detects the viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening Were incorporated in the storage means from the exterior. By comparing the television race card data incorporating the URL information on the Internet relevant to each TV program with said viewing-and-listening channel information The 2nd step which specifies the program by which current viewing and listening is carried out, and the 3rd step which recognizes the URL information included in race card data in relation to the this specified program, It is characterized by having the 5th step which displays the browser screen of the homepage of said URL information in the 4th step accessed to the recognized this URL information, and the window opened one of the split screens of television, or on the television screen.

[0010] According to this configuration of this invention, TV program viewing and listening currently performed independently conventionally and utilization (access to a

homepage etc.) of the Internet can be connected organically. Although information dispatch is performed on a target on the other hand while carrying out usage of continuing passing information (an image and voice) continually irrespective of an intention of a viewer, public responsibility is high and the soundness of a medium called television is very expensive as an information offer medium. On the other hand, although the homepage of the Internet is exhibited, guarantee that many viewers view and listen to the homepage does not have anything. However, in the case of a homepage, looking at the image is allowed in the same image, and it has the advantage which is not in television that information can be disseminated also from a user side until a user is satisfactory.

[0011] Then, this invention is combined organically [a medium which is called such television and the Internet and which is different from each other]. Namely, synchronizing with the program of television, the homepage which can offer informational (and answerback reception from a viewer) is automatically displayed on a television screen by making automatic access to URL relevant to the program perform. The time link of such both media can produce very big effectiveness in various applications, such as information offer, interactive communication, advertising publicity, and a commodity transaction. Since an information offer side can change freely the information offered by changing only the content of the homepage, without changing each URL, the content is rich in versatility.

[0012] In addition, said television race card data can be periodically incorporated automatically using the Internet or broadcast media. Or it is also possible to replace with this or to incorporate said television race card data automatically using the time of the Internet connectivity by actuation of a viewer in addition to this. Furthermore, you may make it use the race card data incorporated from the record media (CD-ROM, DVD, MD, FD, etc.) attached to TV advice journal etc.

[0013] When the continuation viewing-and-listening time amount of a certain program is shorter than the time amount defined beforehand, the URL information on the program can also be disregarded. URL information access about the program in which it was viewed and listened only to the ultrashort time amount of the midst which changes a channel and is looking for the program by this can be inhibited.

[0014] Moreover, in said 3rd step, when it has been recognized that the time information within a program is specified along with URL information, in said 4th step, access to the URL concerned can be performed at the time of day specified by the time information concerned. Thereby, information can be offered when [in a program] the most suitable. Moreover, synchronizing with progress of a program, offer of suitable different information is attained by preparing two or more such URL information at each event.

[0015] In said 3rd step, when it has been recognized that two or more URL information which should be accessed about the program concerned is specified, the menu window for making a viewer choose one of those URL information is made by

open Lycium chinense on a television screen. By this, not all homepage access of URL can be forced but only the information suitable for want of a viewer can be offered.

[0016] Moreover, in said 3rd step, when the classification which the viewer specified beforehand when it had been recognized that the classification within a program is specified along with URL information, and the classification concerned are in agreement, in said 4th step, it may be made to perform access to the URL concerned. Thereby, much URL is prepared and only URL of the classification of a request of a viewer can be made to carry out automatic access.

[0017] Although the above is invention of an approach, this invention also offers the equipment for realizing these approaches.

[0018] Namely, the equipment by this invention is equipment which it cooperates [equipment] with the TV program by which current viewing and listening is carried out in a viewer's television, and displays the Internet homepage on a television screen automatically. A race card data acquisition means to incorporate the television race card data incorporating the URL information on the Internet relevant to each TV program from the outside, This picking A storage means to memorize crowded race card data in un-volatilizing, and a viewing-and-listening channel information detection means to detect the viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening, By comparing said viewing-and-listening channel information with the television race card data memorized in said storage means A program specification means to specify the program by which current viewing and listening is carried out, and a URL information recognition means to recognize the URL information included in race card data in relation to the this specified program, It is characterized by having a display means to make the browser screen of the homepage of said URL information display it as an Internet access means to access to the recognized this URL information, in the window opened one of the split screens of television, or on the television screen.

[0019] As a race card data acquisition means, as mentioned above, the means for the acquisition using record media, such as acquisition using the Internet, acquisition using broadcast media, and CD-ROM, etc. corresponds to this.

[0020] Also in this equipment, the same various configurations as the case of an approach are realizable.

[0021] The external Internet device functions on television with an Internet connectivity function, or the personal computer with television or television of each home which installed the computer program for realizing the various approaches mentioned above as equipment of this invention.

[0022] This invention also includes the record medium which recorded the above-mentioned computer program again. As a storage, fixed secondary storages still like a hard disk, such as ROM which is mounted in the board in equipment, CD-ROM as a non-volatile record medium of portability, a floppy disk, DVD (digital videodisc) and

MD (mini disc), a Zip medium, and a memory card, are also included.

[0023] According to other viewpoints, this invention detects the viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening. By comparing with said viewing-and-listening channel information the television race card data incorporating the URL information on the Internet relevant to each TV program incorporated in the storage means from the exterior Specify the program by which current viewing and listening is carried out, and it is based on said television race card data in a viewer's television. By acquiring the URL information on the Internet relevant to the program by which current viewing and listening is carried out, and making it access automatically to URL of the this acquired Internet In the homepage which combined the homepage of the URL information with the program concerned, or replaced it with the program concerned, displayed on the television screen automatically, and was this displayed The information offer approach by the Internet homepage which is characterized by providing a viewer with the information relevant to the program concerned and which cooperated with the TV program is offered.

[0024] This enables it to combine the advantage of the both sides of television and the Internet effectively, as mentioned above. That is, the information (what cannot be offered qualitatively or quantitatively on television) relevant to a program can be timely offered in the form which complements television. Furthermore, the information (opinion, comment, etc.) from a viewer side is immediately absorbable using the bidirection of the Internet.

[0025] According to the viewpoint of further others, this invention detects the viewing-and-listening channel information that a viewer expresses the channel which is carrying out current viewing and listening. By comparing with said viewing-and-listening channel information the television race card data incorporating the URL information on the Internet relevant to each TV program incorporated in the storage means from the exterior Specify the program by which current viewing and listening is carried out, and it is based on said television race card data in a viewer's television. By acquiring the URL information on the Internet relevant to the program by which current viewing and listening is carried out, and making it access automatically to URL of the this acquired Internet In the homepage which combined the homepage of the URL information with the program concerned, or replaced it with the program concerned, displayed on the television screen automatically, and was this displayed The commodity transaction approach by the Internet homepage which is characterized by performing at least one of publicity of goods, presentation of an order approach, and the presentation of an order sheet and which cooperated with the TV program is offered.

[0026] Incorporeal service besides the object of the truth shall also be included with "goods" here. Moreover, "an order" is offered and it uses with a large concept including reservation, an estimated claim, etc.

[0027] By this commodity transaction approach, high publicity and advertisement of effectiveness of the quality and the amount far exceeding the commercials of the conventional television can be performed, without receiving severe constraint of broadcasting hours. And using the dispatch function from the user side of the Internet, since an order is also possible, it can become a way stage of the high business of immediate effect nature.

[0028] Although it is thought that the location where display of the homepage on the television screen by this invention or informational presentation is performed is generally a home, the operation of the approach of this invention itself is not performed individually and domestically, and it is carried out by the sponsor of a program, an advertising agency, the television station, etc. as work.

[0029]
[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained to a detail.

[0030] Before explaining the concrete configuration of the approach of this invention, and equipment, this invention explains the outline of the premised Internet.

[0031] As shown in <u>drawing 12</u> , distribution of a hypertext document is performed by the computer 243,244 on the Internet called a WWW server. A user can access the document on the Internet in a client computer (only henceforth a client) 241 using the access software called a WWW browser (it is also called a web browser). In order to connect a client computer 241 to the Internet, the communication line of dedication may be used in an enterprise, but when a large-scale facility cannot be prepared individually etc., it connects through the engine which offers service for which a permanent communication circuit which is called a service provider, and which self owns is made to use. That is, the Internet can be accessed by making dialup connection from a client computer 241 through a public line to the host computer of a service provider. Thereby, required information (a text, an image, voice, etc. are included) can be acquired out of the world without moving from its seat at a home. Since this situation is **** which wanders around an informational wave top, it is called netsurfing.

[0032] The unit of the information to access is a file on a WWW server called a page, and by setting out of the link mentioned later, from a certain page, a user can follow it one after another to a ****** type to other pages, and can peruse it. The die length of a page may change freely by the implementer of the page rather than is fixed.

[0033] The address of the proper on the Internet altogether called URL (Uniform Resource Locator) is attached to the document (homepage) of WWW. The structure of URL consists of a protocol name, Server Name, and a pathname of an item, as shown below.

[0034] A http://www.abc.or.jp/def/ghi.html protocol name shows how a computer interprets information. Since a WWW server and a web browser deliver and receive information by the approach of HTTP (Hyper Text Transfer Protocol), the protocol

name of the head of the above-mentioned URL is "http:." In addition, there is also a protocol called ftp for a file transfer. "www.abc.or.jp" expresses the server name. "www" shows that a server is a WWW server. "abc" of "abc.or.jp" shows the code (Japan in this case) with which the systematic name and "or" express the class (various body/individuals in this case) of organization, and "jp" expresses a country. Pathname"def/ghi.html" of an item following Server Name shows the location of the item on a server. A pathname usually shows the identifier of the file which constitutes a page. "def" of "def/ghi.html" is a directory name, "ghi" is a file name, and "html" is an extension which shows that this file is a html file.

[0035] Next, the configuration of an HTML file (HTML document) is explained.

[0036] HTML is Hyper. Text Markup It is the abbreviation for Language and the document (document) of WWW is described using this language. An HTML document, a call, and its file are called an HTML file (or HTML text) for the document described in this language.

[0037] The fundamental configuration of an HTML document is shown in drawing 11 . Although an HTML document is a text file substantially, it is [a code] scattered and has the embedding code (expressed with notation"<" and ">") called a tag in a page. Usually, the appointed range is put with one pair of tags of an initiation tag and a termination tag. A termination tag is distinguished from an initiation tag by "/." However, it may be independently used like <P> showing ******. With this tag, a link information besides character decoration information or layout information can be set up. A browser interprets this tag, and an HTML document is displayed on a screen in the format in alignment with an intention of that implementer, and a link is controlled.

[0038] Since the HTML itself is well-known, detailed explanation is omitted, but as the basic configuration of an HTML document is shown in drawing 11 (a), various tags are intermingled in a text document. In case this HTML document is interpreted by the browser and it is displayed on a screen, as shown in drawing 11 (b), a tag is not displayed but only that content of directions is reflected in a display. When a user directs a certain character string HTML sentence in the letter (for example, click actuation), the function jumped to other pages relevant to the character string is called a link. The link 201 in the page of HTML document"aaa.html" of drawing 11 (a) is described to be <A HREF="bbb.html">BBB</A>. The tag used for setting out of a link is called a support tag (<A ... > ... </A>), and the part pinched with the support tag is called an anchor point or the hot point. Initiation tag of a support tag "HREF=" in <A HREF="bbb.html"> shows the access information (here file name) of a link place. Like the graphic-character train 203 of drawing 11 (b), character string "BBB" emphasizes the part of this support tag, and it is expressed as a browser screen. This highlighting changes a color with other character strings, or attaches an underline, and is performed. Thereby, a user's directions of this character string recognize that it can shift to other pages.

[0039] Moreover, the link 202 shows the case where an in-line image is considered as

a link, and when the image file "ggg.gif" is displayed as an image 204 on a screen and this image 204 is directed by the user, it reads and displays the content of link place "bbb.html" here. Here, an in-line image is an image embedded and displayed in the page of an HTML document. A link 205 (206) is for making it the e-mail transmitting screen (not shown) where the part of a homepage is only clicked and the mail address of a transmission place was inserted automatically appear using the e-mail function of a browser. In addition, although not illustrated, an entry form for a user to input information can also be prepared.

[0040] With reference to <u>drawing 12</u> , transfer of the client at the time of WWW access and the information between WWW servers is explained briefly again.

[0041] A user starts a web browser, after connecting a client 241 to the Internet. Thereby, the web browser on a client 241 requires a transfer of the content (HTML text) of the page specified by the URL to the WWW server 243 about URL (however, it can change) specified beforehand (REQ1). On the other hand, a server 243 returns the HTML text of the page concerned to a client 241 (RES1). In response, a browser analyzes the content and displays it on the screen of a client 241. When in-line images (in addition to this voice etc.) are contained in this page, that information is also required from a server 243 (REQ2). Answering this, a server 243 returns an image file (RES2). A browser displays an image on the location where it was specified in the page in response. When the link place is other pages on the same server 243 when a user directs the link on the page displayed on the screen for example, a transfer of the HTML text of the page is required from a server 243 (REQ3). Answering this, a server 243 returns the text concerned (RES3). Furthermore, when the link place of the link on the page specified by a user is in other WWW servers 244, a transfer of the page information of the link place concerned is required from a server 244 (REQ4). A server 244 returns the corresponding page information in response to this (RES4). A browser displays the received information on a screen.

[0042] WWW access is performed according to such a procedure. In addition, a user can also access the page by inputting URL of arbitration not from the method of specifying a link but from a control unit (remote control and keyboard). Moreover, information can also be disseminated from a user side as mentioned above.

[0043] Now, there explains the gestalt of operation of this invention concretely.

[0044] First, the example of a hardware configuration of the equipment for realizing the gestalt of this operation to <u>drawing 1</u> is shown. Here, television which contained the Internet connectivity function is assumed. However, a personal computer with a built-in television function may be used. Moreover, when using for television a means to detect viewing-and-listening channel information etc. in the state of connectionless so that it may mention later, it is also possible to carry out external [of the equipment of this invention] to television.

[0045] In the configuration of <u>drawing 1</u> , it connects with a bus 100 and a central processing unit (CPU) 101 manages control of the whole equipment of <u>drawing 1</u>

through a bus 100. CPU101 has the calender and clock function which outputs a current date and time of day based on the clock generator which carried out the graphic display abbreviation. The various computer programs and the required data which CPU101 performs are stored in the mask ROM 105. The data of a font used on a television screen are stored in a font ROM 106. A flash memory 107 is the memory of a rewritable non-volatile, and is for storing URL, an e-mail address, etc. which a user wants to memorize in un-volatilizing. Moreover, an upgradable program is also storable in a flash memory 107. It may change to a flash memory or, in addition to this, the secondary storage which are non-volatile storage means, such as MD (mini disc) and a hard disk, may be adopted. RAM108 offers the temporary storage and the working area which are needed when CPU101 performs program execution processing, and the field which stores various parameters required for program execution.

[0046] Connection with a public line is made through a line terminal (LINE). A line terminal is connected to a bus 100 through a modem 118 and the serial controller 117. Although it does not illustrate in using an ISDN circuit, DSU (Data Service Unit) and TA (Terminal Adapter) are used.

[0047] In case this equipment displays the page information received from the public line on a display 122, that content of a display is once drawn on display memory (VRAM) 111 through the display controller 110. The content of this display memory 111 is inputted into an electronic switch 124 through the digital analog (D/A) converter 112.

[0048] When speech information may be included in page information and it enables a voice response, the audio controller 114 and the digital analog (D/A) converter 115 are formed, a sound signal is outputted from here, and it is inputted into an electronic switch 124.

[0049] The TV circuit 121 extracts the video signal and sound signal of each channel which were chosen from the broadcasting electric-wave which received from the antenna 120, gets over, and is outputted to an electronic switch 124.

[0050] Under control of CPU101, an electronic switch 124 changes the signal from the TV circuit 121, and the signal from D/A converter 112, and outputs them to a display 122 and a loudspeaker (SP) 123. By changing this electronic switch 124 dynamically during 1 screen display, two or more split screens and window screens can be displayed on a television screen.

[0051] A user uses remote control 102, in order to control this equipment. The signal (for example, infrared signal) generated from remote control 102 is received by the receiver 103, and the signal is decoded by CPU101. Remote control 102 is shared with actuation of the usual television. The signal for television actuation is transmitted to CPU101 through the TV controller 104.

[0052] In addition, although the equipment configuration for the Internet and the equipment configuration for television were controlled by common CPU101, you may make it control by separate CPU with the equipment of drawing 1 .

[0053] In order for a user to direct connection with the Internet with the equipment of drawing 1 , the exclusive carbon button for it is pushed from remote control 102, for example. Thereby, CPU101 makes dialup connection to the Internet access provider called a provider while starting the software for the Internet access called a web browser. Thereby, on a television screen, the menu window (not shown) containing various kinds of menu items is displayed. A viewer can peruse a desired page by choosing the menu item from this menu window.

[0054] The flow chart of the example of processing of the race card data acquisition in the gestalt of this operation is shown in drawing 2 . After that a user understands, this processing is periodically started automatically at the time of day (midnight which does not have television broadcasting preferably) when every day or the day of the week on which it decided was set beforehand, and is automatically accessed to the site (URL) on the Internet which offers the race card data of television. Or race card data are distributed by E—mail by each addressing to a viewer, and you may make it incorporate this automatically from a user side. This equipment can identify the usual mail and mail of race card data by the title etc.

[0055] If having become setting—out time by the calender and the clock function is checked, acquisition of race card data will judge first whether it is the need (S20). This is because it is not necessary to acquire every day, when acquiring the race card data to the point for about one week at once. What is necessary is to acquire new race card data, only when saying in several [more] days that race card data become less insufficient. Moreover, race card data can also be incorporated automatically irregularly at the time of a viewer's spontaneous Internet connectivity etc., and, also in such a case, this decision step S20 is effective.

[0056] A line connection is tried when it is judged that race card data need to be acquired (S21). If a line connection goes wrong (it is No at S22), a retry will be performed within the count of a retry (S26, S21). If the count of a retry is exceeded, a line connection will be given up and processing will be ended (END).

[0057] If it succeeds in a line connection (it is Yes at S22), access to URL which offers race card data will be performed first (S23). This URL is set up beforehand. For example, a flash memory 107 memorizes automatically at the time of install of a browser program. Following step 23, race card data are incorporated from the URL, and this is also saved at a flash memory 107 (S24). As long as a battery—back—up field is in RAM108, you may make it save race card data to the field. Or as long as there is a secondary storage like a hard disk, you may save there. Then, a circuit is cut (S25) and processing is ended (END).

[0058] In addition, acquisition of race card data is not based on the Internet, for example, may be made to carry out automatic acquisition by the television side by broadcast media (a teletext, an intertext, or digital satellite broadcasting). Furthermore, you may also read from the record medium of portability, such as CD—ROM.

[0059] <u>Drawing 3</u> shows the example of race card data. This is the example (it is not actual) of the race card of each channel of the television broadcasting of the Tokyo area on August 23, 1996. It can recognize which channel is broadcasting what kind of program at time of day with that day of that area from this race card. Moreover, the broadcast start time and end time of a certain program can also be grasped from this race card. Furthermore, depending on the program, one thru/or more URL (http://www. ...) information are matched with the program. The classification information and time information of URL besides the URL itself may also be included in URL information. For example, the classification information can be given to URL and it is shown as "TYPEx" by a diagram. It can consider as the criteria of selection of a viewer who mentions this classification later. However, this classification information is not indispensable. Moreover, the numeric value (with a parenthesis shows) as time information can be added to URL like the program at 21:00 of CH6 "Drama B." This time information is for making access to the URL concerned perform at the relative time of day which expressed the relative time amount from the start time of that program, and was converted from start time based on this. URL (for example, refer to the program at 21:00 of CH4 "Drama A") without time information is for making access to URL perform in the time of initiation of the program (at the event when channel selection is made in the middle of a program), without specifying time of day. On account of a graphic display, although <u>drawing 3</u> does not show, the subject name can be added to each URL so that it may mention later.

[0060] In addition, although relative time amount was used as time information here, time of day may be used absolutely. Moreover, although the race card shown in <u>drawing 3</u> is shown as data of the tabular format which a viewer can peruse by the browser on a television screen, when not performing a display to a viewer, you may be mere text data and binary data.

[0061] <u>Drawing 4</u> shows the processing started when television is switched off. In this processing, the interval timer for URL acquisition corresponding to a program (not shown) is turned on first (S41). Thereby, URL acquisition processing corresponding to a program of <u>drawing 6</u> mentioned later comes to be performed periodically. Subsequently, Flag F is reset to 0 (S42). This flag F is used by processing of <u>drawing 6</u> . Next, the variable PCH holding the last viewing-and-listening channel is reset to 0 (S43). It is used by processing of <u>drawing 6</u> which also mentions this variable PCH later.

[0062] <u>Drawing 5</u> is an example of the processing performed when a viewer turns off television.

[0063] In processing of <u>drawing 5</u> , the interval timer mentioned above is turned off first (S51). Since the need for the URL acquisition corresponding to a program is lost after turning off television, this is for suspending periodic activation of <u>drawing 6</u> . Subsequently, the Maine power source is turned off and processing is ended (S52). The Maine power source is a power source of a television-related equipment part, and

CPU101 can always operate now here.

[0064] Drawing 6 is processing performed periodically (every [for example,] several seconds) until it is turned off, after television is switched off. By this processing, it is recognized automatically serially, without a viewer being conscious of whether time information is added to that URL, as for some classification of which channel the current viewer is looking at or as what program and its program URL is set for it, and its URL, and automatic access to that URL is performed under predetermined conditions.

[0065] In processing of drawing 6 , the viewing-and-listening channel CCH of the present time of day is detected first (S600). With a command called a channel call, television which can carry out channel actuation is equipped with the function to check the channel chosen now, with remote control, and the channel (CH.ID) chosen by the same function as this now can be checked. Moreover, in order to collect the viewing-and-listening data of a TV program as indicated by JP,63-37726,A, there are some which record automatically installation, a viewing-and-listening channel, and its time data on the television equipment of the viewer who became a monitor. With this equipment, a viewer's viewing-and-listening channel is detected using the channel detector of another object with television. This principle takes up the leakage electric wave of the local oscillator of a television receiver. When the equipment of this invention is used as the equipment of the body of television, and another object, the channel detection approach like this conventional technique can be used.

[0066] Next, Flag F investigates whether it is 0 (S601). This flag F is for making different processing from usual only at the time of first time activation of this URL acquisition processing corresponding to a program perform after power-source ON of television, and initial value is set as 0 at the time of television-on (S42 of drawing 4). Therefore, at step S601, it progresses to the Yes side first. Subsequently, race card data on the day are read from the race card data mentioned above, and RAM108 memorizes (S602). Based on this race card data on the day, the program of the viewing-and-listening channel CCH in the present time of day is specified (S603). At this time, the start time and end time of that program are also read, and it memorizes to RAM108 temporarily. Next, Flag F is set to 1 (S604). By modification of this flag value, it will progress to the No side in step S601 from the URL acquisition processing corresponding to a program on and after next time (after several seconds).

[0067] After changing a flag value at step S602, the current channel CCH is memorized as last channel CCH (S610), and this URL acquisition processing corresponding to a program is ended.

[0068] The next URL acquisition processing corresponding to a program progresses to the No side as mentioned above at step 601, after detecting the viewing-and-listening channel CCH of the present time of day (S600). Then, this viewing-and-listening channel CCH is compared with the last viewing-and-listening channel PCH (S605). if, and the channel is not changed namely,, it will investigate whether it is

viewing and listening to the program of the channel CCH x seconds or more continuously (S606). In order to inhibit accessing to URL of the program even about the program changed by too much short time amount for x seconds, it is a thing, and the set point of x may change by how much time amount it considers is viewing and listening. Here, it may be 30 seconds as an example. If it is not continuously viewed and listened to the present channel 30 seconds or more, it progresses to step S610, CCH is substituted for PCH, and this processing is ended.

[0069] In the next URL acquisition processing corresponding to a program, similarly, there is no change of a channel at step S606, and when x seconds or more pass after repeating several times the processing which falls out from step 607 to step 613, it progresses to the following step S607 from step 606. Here, automatic Internet connectivity processing mentioned later is performed.

[0070] Subsequently, it investigates whether the present time of day is over the present program end time of CCH (S608). This is for recognizing a new program by the break of a program. If it has not exceeded, this processing is finished via step S610. If it has exceeded, the new program of CCH is specified like step S603 (S609). At this time, storage maintenance of the race card data on the day by which reading appearance was carried out at previous step S602 shall still be carried out at RAM. Then, CCH is substituted for PCH and this (S610) processing is ended.

[0071] In previous step S605, when this channel CCH differs from the last channel PCH (i.e., when a channel changes), this processing is ended via step S610.

[0072] Drawing 7 shows an example of the detail procedure for specifying the program (a program name or Program ID) of the present time of day of the specific channel shown in steps S603 and S609 in processing of drawing 6 . With the gestalt of this operation, race card data shall be the data format which can carry out sequential access of the program of each channel per time zone of 1 hour. However, this invention is not limited to such a data format.

[0073] In processing of drawing 7 , the data of the time zone containing the present time of day are acquired first (S701). Next, the channel of race card data is checked until the present channel CCH and the channel of race card data are in agreement (S702, S703). Subsequently, it investigates whether two or more programs are in the present time zone (1 hour) of the channel CCH (S704). If there is nothing, it will progress to step S706. If it is, the program applicable to the present time of day is specified (S705). At step S706, all URL (and time information) set up about the program is acquired, and processing of drawing 7 is ended.

[0074] The example of the automatic Internet connectivity processing shown in drawing 8 at drawing 6 is shown.

[0075] In processing of drawing 8 , it investigates whether there is any URL information which corresponds in the present time of day of the present channel first (S801). If there is nothing, this processing will be ended and it will return to processing of drawing 6 (RET). Here, the thing of the degree "corresponding" is said.

When neither time information nor classification information is specified, all URL set up about the program corresponds. When time information is included in URL information, URL whose time of day of the corresponded corresponds. When classification information is included in URL information and one of classification information is specified by the viewer, URL of the classification which was in agreement with the classification information specified by the viewer corresponds. If there is such corresponding URL information, connection with a circuit will be confirmed (S802). A circuit will be connected if still [connection of a circuit] (S803). Retry processing is omitted in this drawing. Moreover, a browser is started (S804). Subsequently, it investigates whether two or more such corresponding URL information exists (S805). For example, in the program at 21:00 of CH4 shown in drawing 3 , there is three URL, and since there is all no assignment of time information in such URL information when there is no assignment of a viewer's classification, all these URL will correspond. On the other hand, although two URL information exists in the program at 21:00 of CH6, since time information different, respectively is given, both are not set to URL which corresponds simultaneously. In addition, a viewer can specify the classification of URL beforehand on an initialization screen (not shown).

[0076] When two or more corresponding URL exists, as shown in drawing 9 , the menu window 901 is displayed, and a viewer is urged to choose either of the subject names corresponding to such URL (S806). In the example of drawing 9 , remote control 102 shows the condition that item ″electronic shopping″ 905 were chosen by the cursor 903 in the operational window 901 among item ″electronic shopping″ 905 of URL, ″performer profile″ 906, and ″questionnaire″ 907. These subject names are contained in the race card data of drawing 3 as mentioned above.

[0077] When two or more corresponding URL exists, it may be made to instead make sequential selection automatically to two or more URL.

[0078] Drawing 8 is automatically accessed to return and URL determined by doing in this way (S807). Then, the usual browser actuation is permitted to a viewer (S(browser actuation of user is received) 808).

[0079] When a viewer performs termination directions of a browser by remote control actuation, it progresses to Yes) and step 810 by (S809, and this processing is ended when that is not right. Also after that, actuation of the browser by the viewer can be received continuously.

[0080] When there are termination directions, a browser is ended (S810), a circuit is cut (S811) and this processing is ended.

[0081] In the gestalt of this operation, the following can be considered as URL prepared actually.

[0082] (1) Sponsor URL -- this is URL of the homepage of its company which the sponsor of the program prepared.

[0083] (2) Goods URL (electronic shopping URL)

This is URL of the homepage for carrying out the publicity advertisement of the goods (service being included) which the sponsor of the program deals with, and the goods (for example, the clothes which the hero wears, a coffee cup, an automobile, glasses, a hair style, a restaurant, a hotel, etc.) which constitute a drama, offering the detailed information of the goods introduced within the program, or performing an online sale and reservation reception of those goods further.

[0084] The example of a display of such a homepage is shown in <u>drawing 10</u> . In this example, a program is a drama and the case where the T-shirt which that hero wears in the drama is being advertised is shown. A viewer can also be applied for the purchase of this T-shirt on-line using the function of a browser. That is, after applying if the "application form" on a browser screen is clicked, displaying form (not shown) and inputting a need matter into the blank, it can propose by carrying out transmitting directions.

[0085] (3) Performer URL -- this is URL of the homepage which released the information (for example, a profile, a photograph, etc.) about the performer of the program.

[0086] (4) Questionnaire URL and this are URL of the homepage for transmitting and getting opinion, comment, etc. over a viewer's program with an electronic mail etc. which the sponsor or broadcasting station of the program prepared.

[0087] (5) Quiz URL or Prize URL -- this is URL of the homepage for offering information set in the program, such as quiz and a problem of a prize. On a program, on progress of a program, although the time amount and the amount of problems which can present such a problem have a limit at amount of information, progress of a very effective program is attained by using a homepage together separately in this way synchronizing with progress of a program.

[0088] (6) the junction information URL -- this is URL of the homepage for also performing offer of various information to a viewer in a sports program or the Election program. For example, in a baseball program, progress of the other Stadiums can be displayed or the data of another include angle can be offered in a golf program with this program of being as displaying the data of the player of another hole ****.

[0089] Although the suitable example of this invention was explained above, it is possible to make various deformation change, without deviating from the summary of this invention. Although such URL was shown as a thing according to individual, it does not need to be independent respectively and can use together in one URL. For example, the above-mentioned URL is mere instantiation and can consider various URL besides these.

[0090]

[Effect of the Invention] By according to this invention, cooperating with a TV program and displaying the Internet homepage on a television screen automatically Namely, by connecting organically TV program viewing and listening currently performed independently conventionally and utilization (access to a homepage etc.) of

the Internet, and making it access automatically to URL relevant to a program In the former, instant offer of the information on many reliance, the response of the instancy from a viewer, etc. are attained in relation to the difficult program.

[0091] Moreover, it can be attached to the same program to a viewer, two or more URL can be offered simultaneously, and automatic access can be made to perform about URL of a specific classification which the viewer specified beforehand about those either by a viewer's selection.

[0092] In addition, it becomes realizable [the various new services using this invention].

[0093]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram showing the example of a hardware configuration of the equipment with which this invention is applied.
[Drawing 2] It is the flow chart which shows the example of processing of the race card data acquisition in the gestalt of operation of this invention.
[Drawing 3] It is the explanatory view of the example of a configuration of the race card data in the gestalt of operation of this invention.
[Drawing 4] It is the flow chart which shows the example of processing at the time of the television-on in the gestalt of operation of this invention.
[Drawing 5] It is the flow chart which shows the example of processing at the time of the television-off in the gestalt of operation of this invention.
[Drawing 6] It is the flow chart which shows the example of processing of the URL acquisition (and URL automatic access) corresponding to a program in the gestalt of operation of this invention.
[Drawing 7] It is the flow chart which shows the example of processing of program specification in the gestalt of operation of this invention.
[Drawing 8] It is the flow chart which shows the example of processing of the automatic Internet connectivity shown in drawing 6 .
[Drawing 9] It is the explanatory view showing the example of a display of the menu window of step S806 of drawing 8 .
[Drawing 10] It is the explanatory view of the browser screen of the homepage of URL accessed at step S807 of drawing 8 .
[Drawing 11] It is the explanatory view of an HTML document and the browser screen corresponding to this.
[Drawing 12] It is the explanatory view of the communication link between the client

in the Internet, and a WWW server.

[Description of Notations]

101 [-- A mask ROM, 106 / -- Font ROM, 107 / -- A flash memory, 108 / -- RAM, 110 / -- A display controller, 111 / -- Display memory (VRAM), 118 / -- A modem, 120 / -- An antenna, 121 / -- TV circuit, 122 / -- A display, 123 / -- A loudspeaker (SP) 124 / -- Electronic switch.] -- CPU, 102 -- Remote control, 103 -- A receiver, 105